

AMENDMENTS TO THE CLAIMS

Claims 1-96. (Canceled)

97. (Currently amended) A support comprising an array of microchips, each of said microchips comprising an array of oligonucleotide probes immobilized on the surface of each of said microchips, each of said microchips being ~~[[physically]]~~ separated by a barrier from every other microchip, and each of said microchips having oligonucleotide with different sequences attached thereto.

98-156. (Canceled)

157. (Previously presented) The support of claim 97 wherein the microchips are separated by physical barriers.

158. (Previously presented) The support of claim 97 wherein the microchips are separated by hydrophobic surfaces.

159. (Previously presented) The support of claim 97 wherein the microchips are arranged in multiple rows and columns.

160. (Previously presented) The support of claim 97 wherein the microchips are positioned for use with multichannel pipet.

161. (Previously presented) The support of claim 97 combined as a kit with at least one component selected from: hybridization buffer, washing buffer, control DNA, a set of labeled probes, ligation enzyme, chemical ligation agent, and ligation buffer.

162. (Previously presented) The support of claim 97 wherein the microchips are arrayed in an 8 times 12 format.

163. (Previously presented) The support of claim 97 wherein there is more than 256 oligonucleotide probes per array.

164. (Previously presented) The support of claim 97 wherein the oligonucleotide probes are between about 4 and about 9 bases in length.

165. (Previously presented) The support of claim 97 wherein the oligonucleotide probes are prepared on the microchip via a light-directed oligonucleotide synthesis.

166. (Previously presented) A support comprising multiple arrays of immobilized oligonucleotides, wherein each array is physically separated from every other array and each array having oligonucleotide with different sequences attached thereto.

167. (Previously presented) The support of claim 166 wherein the arrays of oligonucleotide are separated by physical barriers.

168. (Previously presented) The support of claim 166 wherein the arrays of oligonucleotides are separated by hydrophobic surfaces.

169. (Previously presented) The support of claim 166 wherein the arrays of oligonucleotides are arranged in multiple rows and columns.

170. (Previously presented) The support of claim 166 wherein the arrays of oligonucleotides are positioned for use with multichannel pipet.

171. (Previously presented) The support of claim 166 combined as a kit with at least one component selected from: hybridization buffer, washing buffer, control DNA, a set of labeled probes, ligation enzyme, chemical ligation agent, and ligation buffer.

172. (Previously presented) The support of claim 166 wherein the arrays of oligonucleotides are arrayed in an 8 times 12 format.

173. (Previously presented) The support of claim 166 wherein there is more than 256 oligonucleotides per array.

174. (Previously presented) The support of claim 166 wherein the oligonucleotides are between about 4 and about 9 bases in length.

175. (Previously presented) The support of claim 166 wherein the oligonucleotides are prepared on the support via a light-directed oligonucleotide synthesis.

176. (Previously presented) A method to obtain probe:nucleic acid fragment complexes comprising the step of contacting the support of claim 97 or claim 166 with a nucleic acid fragment under condition that permit complex formation between a oligonucleotide probe on the support and the nucleic acid fragment.